

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

**FEDERAL-STATE-PRIVATE
COOPERATIVE SNOW SURVEYS**

serve
2.9
3 wat



U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
RECEIVED
OCT 22 1971
PROCUREMENT SECTION
CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK FOR IDAHO

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

IDAHO STATE DEPARTMENT OF WATER ADMINISTRATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
JUNE 1, 1971

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR IDAHO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D. C.

|||||

Released by

GUY W. NUTT
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
BOISE, IDAHO

In Cooperation with

R. KEITH HIGGINSON
DIRECTOR
DEPARTMENT OF WATER ADMINISTRATION

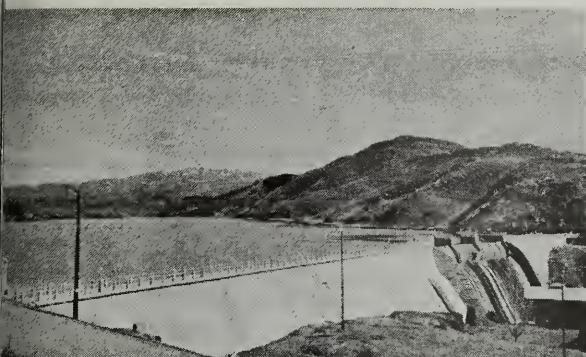
|||||

Report prepared by

MORLAN W. NELSON, Snow Survey Supervisor
and

J. ALDEN WILSON, Assistant Snow Survey Supervisor
SOIL CONSERVATION SERVICE
SNOW SURVEY SECTION
ROOM 345, 304 N. 8th. ST.
BOISE, IDAHO 83702

WATER SUPPLY OUTLOOK for IDAHO



JUNE 1, 1971

SNOW SURVEYS, SUPPLEMENTAL MEASUREMENTS AND CORRECTIONS

Key snow courses measured near the first of June indicate a heavy snow-pack remains and that the snowmelt has been retarded by cool weather. At high elevations, additional snow fell during May.

Many snow courses in southern Idaho are among the highest years of record with saturated soils throughout the drainages. Runoff that occurred during April and May was also extremely high and possibly recordbreaking on such streams as Goose and Trapper Creeks above Oakley Reservoir. Some small reservoirs, such as Oakley and Salmon Falls, are higher than they have ever been for this time of the year.

Forecasts of seasonal streamflow may be slightly low but in general are unusually accurate.

This report carries supplemental and corrected measurements made earlier in the season. In some cases, resurveys were made, and others, errors were found in the data.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

JUNE 1, 1971 MEASUREMENTS

Big Creek Summit	15E2	6600	5/30	54	27.8	22.0	--
Bogus Basin	16F2	6120	6/2	4	2.2	9.8	--
Brundage Mountain	16D6	7560	5/26	98	53.2	48.4	--
Crater Meadows	15C9	6100	5/28	59	42.8	47.6	--
Galena Summit	14F12	8795	6/1	55	25.3	13.4	--
Goat Lake	14C9	6600	5/28	82	43.0	30.6	--
Granite Peak	15B13	6000	5/28	90	46.0	32.4	--
Hemlock Butte	16C6	5500	5/28	81	42.4	44.8	--
Lookout	15B2	5250	6/2	35	18.2	20.7	--
Lost Lake	15B14	6000	5/28	99	55.0	41.0	--
Medicine Ridge	15B4	6150	5/28	86	45.4	31.0	--
Moore's Creek Summit	15F1	6100	6/1	4*	21.6	14.2	6.8
Schweitzer Bowl	16A6	4500	5/28	0	0.0	0.0	--
Schweitzer Ridge	16A5	6100	5/28	78	39.2	29.5	--
Trinity Mountain	15F5	7780	5/28	84	43.2	32.6	--

SUPPLEMENTAL MEASUREMENTSNOVEMBER 1, 1970

Pierce Rgr. Sta.	15C5	3170	11/3	0	0.0	0.0	--
Boulder Creek	16D1	5500	10/28	11	2.3	--	--

NOVEMBER 15, 1970

Midway	16C12	2200	11/19	0	0.0	--	--
Pierce Rgr. Sta.	15C5	3170	11/13	0	0.0	0.0	--

DECEMBER 1, 1970

Bogus Basin	16F2	6120	12/7	33	8.8	--	--
Boulder Creek	16D1	5500	11/27	28	4.1	T	--
Crumarine Creek	16C6	3340	11/30	6	1.0	--	--
East Twin	16C3	4050	11/30	7	1.2	--	--
Emigrant Summit	11G6	7350	11/30	32	7.5	1.8	--
Giveout	11G16	6840	11/30	19	3.9	--	--
Howard Creek	16C5	3450	11/30	6	1.0	--	--
Midway	16C12	2200	11/30	0	0.0	T	--
Moscow Mountain	16C2	4400	11/30	11	2.1	--	--
Pierce Rgr. Sta.	15C5	3170	11/30	6	1.4	0.0	--
Somsen Ranch	11G1	7000	12/4	23	4.8	0.5	--
West Twin	16C4	4250	11/30	10	1.6	--	--

DECEMBER 15, 1970

Moore's Creek Summit	15F1	6100	12/16	67	17.9	--	--
Pierce Rgr. Sta.	15C5	3170	12/15	17	3.1	1.8	--

(b) 1953-67, 15 year period. * Not located directly on this drainage. • Estimated 1953-67, 15 year Average. (A) Aerial observation; Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

SUPPLEMENTAL MEASUREMENTSJANUARY 15, 1971

Above Burke	15B8	4100	1/22	63	19.0	--	--
Bad Bear	15F2	5500	1/14	50	12.1	7.6	--
Bogus Basin	16F2	6120	1/18	71	24.0	13.0	--
Bogus Basin Road	16F4	5360	1/11	30	6.9	7.2	--
Galena	14F1	7300	1/14	67	16.8	8.6	--
Galena Summit	14F12	8795	1/14	78	21.0	17.2	--
Moore's Creek Summit	15F1	6100	1/14	102	28.6	15.9	--
Mount Baldy	14F9	9000	1/15	77	19.4	8.0	11.0
Mosquito Ridge	16A4	5110	1/19	79	23.4	--	--
Pierce Rgr. Sta.	15C5	3170	1/15	--	7.8	3.2	--

FEBRUARY 15, 1971

Galena	14F1	7300	2/15	65	21.2	15.2	--
Galena Summit	14F12	8795	2/15	80	26.6	17.2	--
Moore's Creek Summit	15F1	6100	2/16	104	36.5	30.6	--
Mount Baldy	14F9	9000	2/15	70	22.5	12.2	15.4
Pierce Rgr. Sta.	15C5	3170	2/15	31	10.8	6.0	9.4

MARCH 15, 1971

Atlanta Summit	15F4	7500	3/18	137	45.9	--	--
Bad Bear	15F2	5500	3/16	62	21.1	16.8	--
Bogus Basin	16F2	6120	3/15	101	33.0	30.7	20.6
Bogus Basin Road	16F4	5360	3/15	28	9.9	0.8	--
Fourth of July Smt.	16B3	3100	3/15	38	11.9	10.2	--
Galena	14F1	7300	3/16	82	26.4	18.8	--
Galena Summit	14F12	8795	3/16	95	32.6	22.0	--
Lookout	15B2	5250	3/15	132	45.2	31.9	36.2
Moore's Creek Summit	15F1	6100	3/16	130	45.1	38.6	--
Mount Baldy	14F9	9000	3/15	86	23.6	17.2	19.0
Pierce Rgr. Sta.	15C5	3170	3/15	43	13.4	6.0	11.4
Prairie	15F6	4900	3/14	28	9.3	6.1	--
Sherwin	16C1	3200	3/15	51	15.4	11.3	--
Trinity Mountain	15F5	7780	3/18	153	59.5	--	--

APRIL 15, 1971

Atlanta Summit	15F4	7500	4/19	125	52.1	--	--
Atlanta Summit (SP)	15F4	7500	4/19	121	52.5	--	--
Bad Bear	15F2	5500	4/16	36	15.2	--	--
Bogus Basin	16F2	6120	4/19	86	37.2	--	--
Galena	14F1	7300	4/14	68	26.8	20.2	--
Galena Summit	14F12	8795	4/14	92	36.2	24.9	--
Lookout	15B2	5250	4/15	118	48.7	39.9	--
Moore's Creek Summit	15F1	6100	4/16	116	45.4	36.0	31.5

(b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation; Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

SUPPLEMENTAL MEASUREMENTSAPRIL 15, 1971 (Cont'd)

Mount Baldy	14F9	9000	4/14	82	30.2	19.2	--
Pierce Rgr. Sta.	15C5	3170	4/15	14	5.7	0.6	5.0
Prairie	15F6	4900	4/14	T	T	0.3	--
Trinity Mountain	15F5	7780	4/19	142	63.3	--	--
Trinity Mountain (SP)	15F5	7780	4/19	156	70.2	--	--

MAY 1, 1971

Above Burke	15B8	4100	5/4	54	24.8	--	--
Moose Creek	13D16	6200	5/6	4'	18.4	22.4	12.3*
Silver City	16F3	6400	4/27	38	16.6	20.5	6.7*

MAY 15, 1971

Atlanta Summit	15F4	7500	5/13	93	40.7	36.0	--
Bogus Basin	16F2	6120	5/17	32	16.3	25.5	--
Lookout	15B2	5250	5/17	85	39.5	37.9	--
Moore's Creek Summit	15F1	6100	5/17	69	29.4	32.7	--
Trinity Mountain	15F5	7780	5/14	106	51.2	46.6	--

CORRECTIONS TO PREVIOUSLY PUBLISHED 1971 DATAJANUARY 1, 1971

Cozy Cove	15E8	5900	12/29	60	14.8	6.6	5.9
Deadwood Airstrip	15E10	5440	12/29	61	14.7	6.4	5.6*
Deadwood Dam	15E7	5290	12/29	59	14.1	6.8	6.5
Lolo Pass	14C5	5230	1/2	65	16.0	6.8	--
Powell Rgr. Sta.	14C6	4230	12/31	31	6.2	2.8	--
Savage Pass	14C4	6600	1/1	59	12.7	5.8	--
Soldier Rgr. Sta.	14F11	6100	12/29	44	7.6	--	4.3*

FEBRUARY 1, 1971

Deadwood Airstrip	15E10	5440	1/28	56	15.5	17.4	10.3*
Deadwood Dam	15E7	5290	1/28	62	18.5	17.1	11.0
Silver City	16F3	6400	2/1	41	14.1	15.4	9.2*

MARCH 1, 1971

Austin Bros. Ranch	11G3	6450	3/1	37	11.2	7.4	6.8*
Fourth of July Smt.	16B3	3100	2/26	31	8.3	9.5	10.5*
Hemlock Butte	16C6	5500	3/4	156	53.8	40.4	43.2*
Irving Creek	12E4	7035	2/25	32	7.7	4.0	4.5*
Montpelier Creek	11G18	6570	2/25	37	9.7	7.2	6.8*

(b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation; Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

SNOW

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^b

CORRECTIONS TO PREVIOUSLY PUBLISHED 1971 DATAMARCH 1, 1971 (Cont'd)

Muldoon	13F5	6300	2/26	36	10.6	6.2	7.2
Orogrande Mountain	15D4	7800	2/22	106	38.2	--	--
Oxford Mountain	12G3	6800	3/1	39	11.4	8.6	8.0*
Pine Creek Pass	11F2	6750	2/26	55	17.1	18.9	14.6*
Pole Creek Nev.	15H14	8330	3/2	71	24.2	17.8	15.3*
Red Point Nev.	15H18	7940	3/2	40	13.4	10.2	9.5*
Sherwin	16C1	3200	3/1	43	13.5	11.1	--
Shoshone Basin	14G6	5740	3/2	15	4.0	4.0	3.2*
Upper Elkhorn	12G10	7100	2/26	63	20.0	17.6	--

APRIL 1, 1971

Below Roland	15B6	3770	4/1	50	21.4	19.9	17.0*
Couch Summit	14F10	6950	3/31	82	30.7	18.1	17.9*
Cove	11G25	5525	3/30	14	5.8	0.0	--
Crater Meadows	15C9	6100	4/1	127	55.8	45.4	45.3*
Galena Summit	14F12	8795	3/27	105	35.2	23.0	23.9
Mosquito Ridge	16A4	5110	4/1	116	46.6	37.8	40.2*
Roland Summit	15B5	5200	4/1	126	53.8	--	41.2*
Smith Creek	16A1	4800	3/30	163	64.6	31.6	50.1
Sunset	15B9	5600	4/1	119	48.2	32.7	35.6*
Webber Creek	12E5	6700	3/30	34	9.2	5.1	4.5*

MAY 1, 1971

Mount Baldy	14F9	9000	5/5	71	29.2	20.2	21.8
Rock Flat Summit	16E1	5200	4/30	55	23.6	20.1	15.7*

(b) 1953-67, 15 year period. * Not located directly on this drainage. * Estimated 1953-67, 15 year Average. (A) Aerial observation: Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

Agencies and Organizations Cooperating in Idaho Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests, and
Water Resources, British Columbia
Department of Resources and Development,
Water Resources Division

States:

Idaho State Department of Water Administration
State of Idaho Department of Fish and Game
University of Idaho
Idaho State University
Montana Agricultural Experiment Station
Montana State Water Conservation Board
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon Cooperative Snow Surveys
Oregon State Engineer and Corps of
State Watermasters
Utah Cooperative Snow Surveys
Wyoming Cooperative Snow Surveys

Federal:

U. S. Army Engineers
U. S. Department of Agriculture
Forest Service
Agricultural Research Service
U. S. Department of Commerce
Environmental Sciences Service Administration,
Weather Bureau
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Water Resources Division, Geological Survey
Indian Service
National Park Service
Bureau of Land Management

PUBLIC UTILITIES

The Montana Power Company
Washington Water Power Company
Idaho Power Company
Utah Power and Light Company

ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District
Boise Project Board of Control
Little Wood River Irrigation District
Jordan Valley Irrigation District
Salmon Falls Creek Irrigation Company
Twin Falls Soil Conservation District
Twin Lakes Irrigation Company
Big Wood Irrigation Company
Owyhee Project - North & South Board of Control

PRIVATE CORPORATIONS

Amalgamated Sugar Company

*Other organizations and individuals furnish valuable information for
snow survey reports. Their cooperation is gratefully acknowledged.*

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Room 345
304 N. 8TH ST.
BOISE, IDAHO 83702

OFFICIAL BUSINESS



POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE

FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

USDA NATIONAL AGRICULTURAL
LIBRARY
CURRENT SERIAL RECORD
BELTSVILLE, MARYLAND 20705